

Piezoelectric Film Transducer**Abstract of the Disclosure**

- 5 A method and apparatus transduces between mechanical and electrical signals within a middle ear to improve hearing. An electromechanical transducer film, preferably polyvinylidene fluoride (PVDF), is carried by a mount secured to the middle ear. The film is constrained by the mount, or by the mount and an auditory element. The invention includes substantially straight, bow-shaped, hoop-
- 10 shaped, and bi-element transducer film embodiments. The film transduces between mechanical vibrations of an auditory element, such as the malleus or stapes, and electrical signals for use with an electronics unit of a partial middle ear implantable (P-MEI) or total middle ear implantable (T-MEI) hearing aid.